AMENDMENTS

To the Claims:

1. (Currently Amended) Power storage system, intended to transmit power to and from a driving system of a vehicle, said driving system comprising at least one electric apparatus, comprising a power storage having a stator-provided winding and at least one rotor provided with a magnetic-flux generating device, said rotor being connected to at least one flywheel intended for storage of energy in the form of kinetic energy in at least one rotary mass, said power storage being arranged to transmit power to and from said electric apparatus, wherein said stator comprises at least a first winding arranged to ~~operate~~ transmit power to and from the electric apparatus at low voltage as well as a second winding arranged to ~~operate~~ transmit power to and from the electric apparatus at high voltage, said first and second windings being arranged to operate independently of each other.

2. (Previously Presented) Power storage system according to claim 1, wherein at least one energy storage is comprised, which energy storage is connected with said electric apparatus, said power storage being arranged to transmit power to and from said energy storage.

3. (Previously Presented) Power storage system according to claim 1, wherein said power storage is arranged to receive power that has been transmitted from an external source.

4. (Previously Presented) Power storage system according to claim 1, wherein said magnetic-flux generating device in the rotor comprises permanent magnets.

5. (Previously Presented) Power storage system according to claim 1, wherein said magnetic-flux generating device in the rotor comprises a squirrel cage winding.

6. (Previously Presented) Power storage system according to claim 1, wherein said rotor is mounted with magnetic bearings.

7. (Previously Presented) Power storage system according to claim 6, wherein said rotor also is mounted with sliding bearings.

8. (Previously Presented) Power storage system according to claim 1, wherein said first winding is arranged to operate at a voltage that is lower than 380 V.

9. (Previously Presented) Power storage system according to claim 8, wherein said first winding is arranged to operate at a voltage that is in the interval of 6-50 V.

10. (Previously Presented) Power storage system according to claim 1, wherein said second winding is arranged to operate at a voltage that is higher than 380 V.

11. (Previously Presented) Power storage system according to claim 10, wherein said second winding is arranged to operate at a voltage that is in the interval of 1-24 kV.

12. (Previously Presented) Power storage system according to claim 1, wherein said stator is air-gap wound.

13. (Canceled).

14. (Canceled).

15. (Previously Presented) Power storage system according to claim 1, wherein at least one of said windings comprises a conductor surrounded by a first semiconducting layer, said first semiconducting layer is then surrounded by a layer of fixed insulation, said first layer of fixed insulation is then surrounded by a second semiconducting layer.

16. (Previously Presented) Power storage system according to claim 1, wherein said rotor comprises a first core, a second core as well as a third core, the first winding of the stator being arranged between said first and said second core and the second winding of the stator being arranged between said second and said third core.

17. (Canceled).